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Date: 2/6/2013 10:55:42 AM

Subject: Fw: Donlin Presentation for Agency Scoping Meeting (TODAY 1-5 PM AK TIME)

Attachments: Donlin_Agency Scoping Meeting_130206.pdf

Greetings Everyone!

Please find attached the "Donlin 101" presentation for the Cooperating Agency Meeting today starting at 1 pm AK Time (2 pm Seattle Time).

Location: Conference Room
Anchorage District Office BLM
4700 BLM Road (Campbell Tract)

Teleconference Access: (b) (6)

Passcode: (b) (6)

Purpose:

The meeting is an early exercise in identifying issues with particular emphasis on the permitting and consultation authorities of the cooperating agencies. Agencies are requested to consult the attached Table 7-3: Permits and Authorizations, prepared by Donlin Gold. Please review and identify any additional authorizations and permits that are relevant. Please prepare with the agency resource specialists a list of issues to be analyzed in the EIS, as they flow from the agencies permitting and consultation responsibilities.

Agenda:

- 1 pm – 2 pm: "Donlin 101" – a detailed presentation regarding the project by Donlin Gold
- 2 – 5 pm: Agency Issues, concerns, and information sources for the EIS
(10 minutes per agency. The moderator will call for breaks as appropriate.)
 - o Corps
 - o BLM
 - o EPA
 - o FWS
 - o Discussion regarding federal agency issues
 - o ADNR
 - o ADEC
 - o ADFG
 - o Other State Offices (SPCO, DHSS)
 - o Discussion regarding state agency issues
 - o Village of Crooked Creek
 - o Native Village of Chuathbaluk
 - o Native Village of Napaimute
 - o Kuskokwim River Watershed Council
 - o Discussion regarding tribal and regional cooperator issues

Let me know if you have any questions. Thanks.

(See attached file: Donlin_Agency Scoping Meeting_130206.pdf)

DONLIN GOLD Project Overview

EIS Cooperating Agency Scoping
Meeting

BLM Anchorage Field Office
February 6, 2013



Agenda



- Introduction
- Project Summary
- Geology & Mining
- Mill/Process
- Water Management
- Logistics & Infrastructure
- Reclamation & Closure
- Community Engagement



Donlin Gold



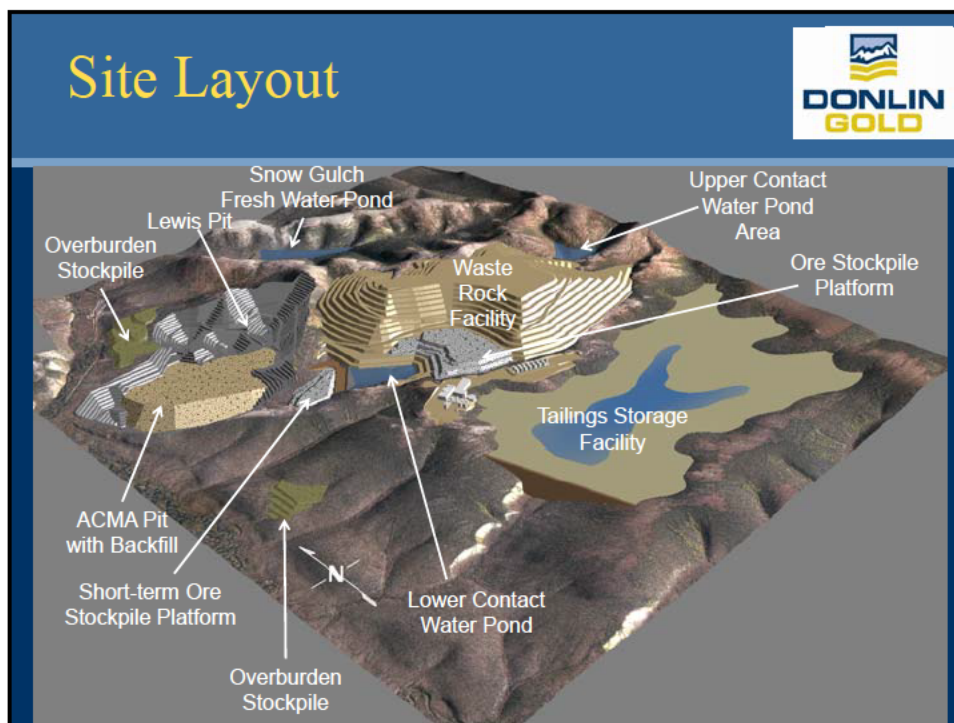
- Donlin Gold LLC is 50/50 partnership
 - Barrick Gold US
 - NovaGold Resources
- Operates under land agreements w/ ANCSA landowners
 - Calista Corporation (Mining Lease)
 - The Kuskokwim Corporation (Surface Use)
- Project office located in Anchorage
 - ~40 employees



Project Summary



- Reserve: > 33 million ounces Au (~500M tons ore)
- Mine Life: ~27 years
- Production: >1 million ounces annually
- Operation: Open-pit, conventional truck & shovel
- Milling: 59k st/d, sulfide flotation, Pressure Oxidation, Carbon-in-Leach (CIL) recovery
- Strip ratio: ~5.5:1 = ~3B tons waste rock
- Tailings: Fully lined storage facility
- Power: ~150MW, supplied by 313 mile, 14" buried natural gas pipeline
- Logistics: All consumables supplied by Kuskokwim River transportation system w/ port near Jungjuk Creek



Disturbance Footprint

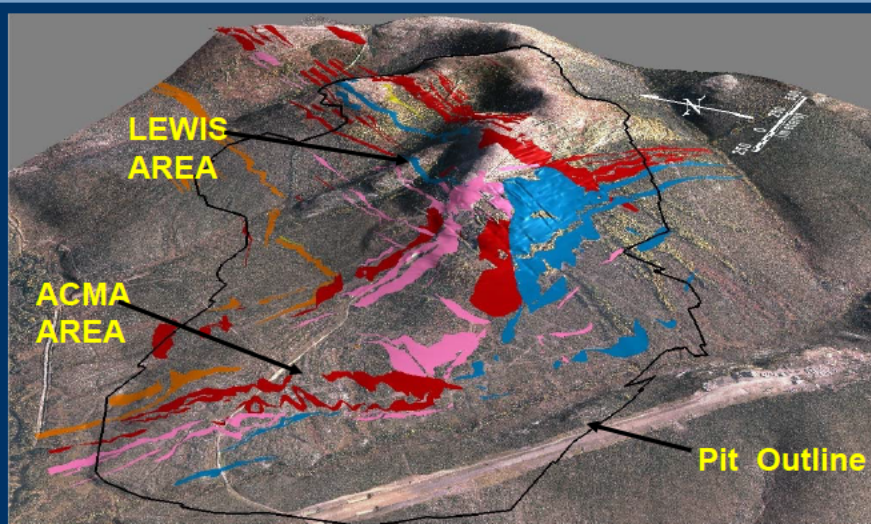
- **Facilities Study Area (FSA)**
 - Footprint ~ 10,000 acres
 - Wetland ~5,300 acres
- **Pipeline Study Area (PSA)**
 - Footprint ~ 6,300 acres
 - Wetland ~ 1,600 acres
- **Aquatic Habitat**
 - Nearly 100% direct impact to American and Anaconda creeks
 - Reduction in Crooked Creek streamflow ~2-25%
 - Total temporary/permanent linear stream impacts ~75 miles

Economic Impacts



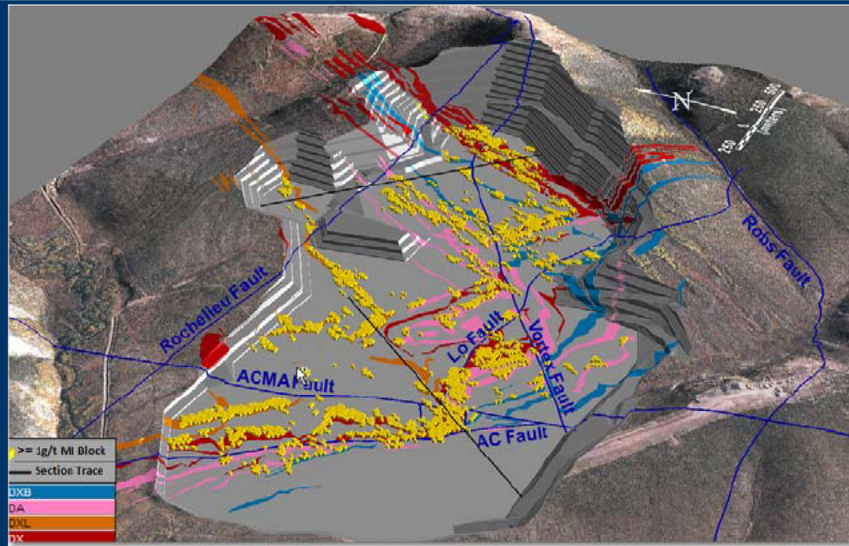
- **Construction Phase (3 years)**
 - Major investment in regional infrastructure
 - Workforce: ~3,000
 - Payroll: > \$1 billion (~\$375 million/year)
- **Operations (>27 years)**
 - Workforce: ~ 900
 - Payroll: ~\$100 million/year
 - Indirect and induced payroll: ~\$60 million/year
 - Royalties to Calista, and distributed statewide through 7(i) provision of ANCSA
 - Mining license and corporate income taxes to State

Geology

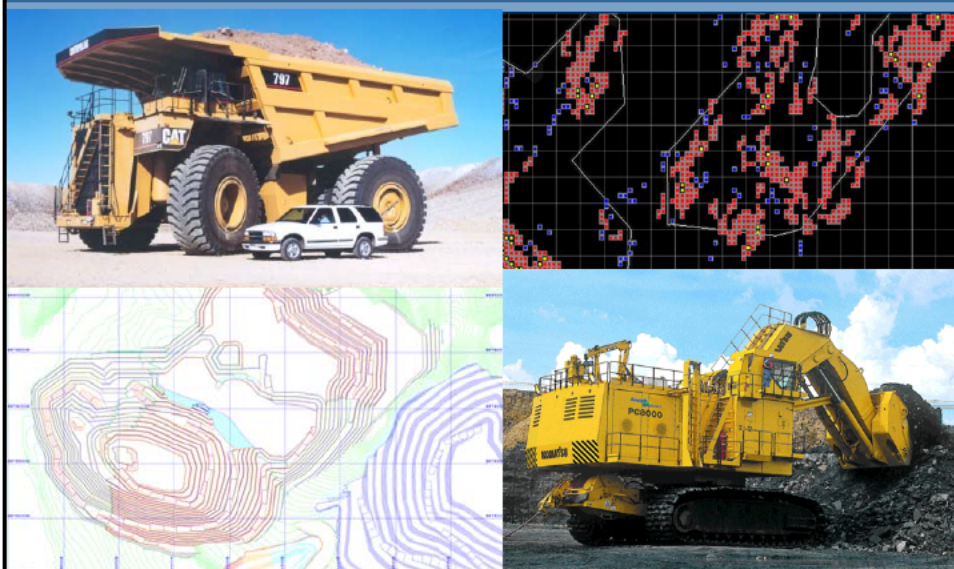


Resource

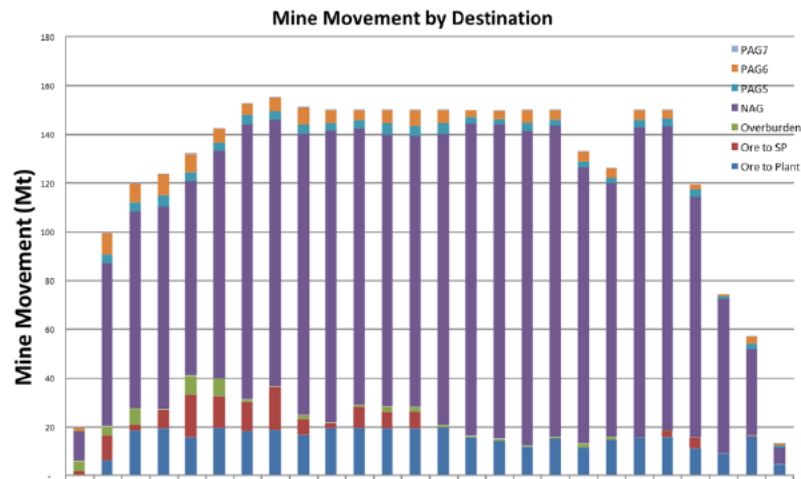
100 m bench showing +1 g/t Au blocks



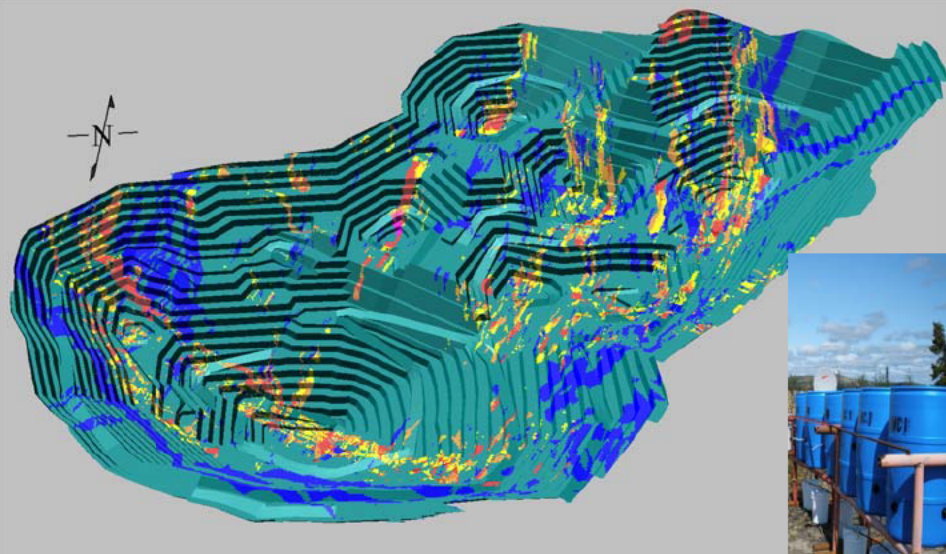
Mining



Annual Material Movement



Waste Rock Model



Waste Rock Classification



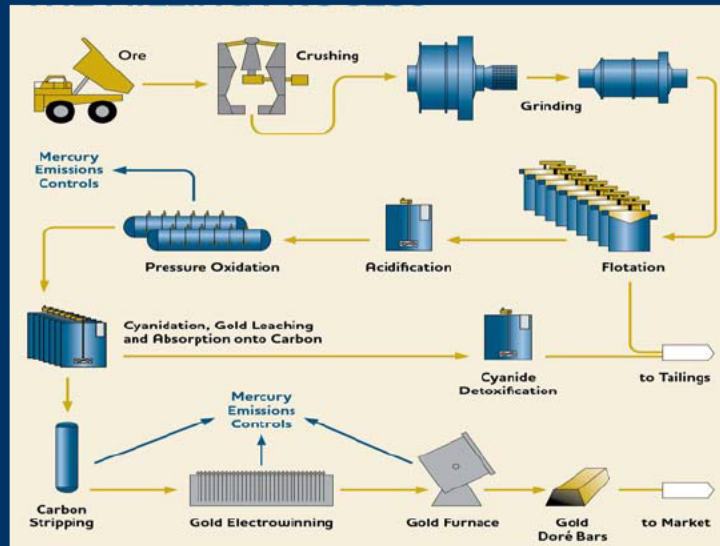
WRMC	Mt	%	Disposal
NAG	2,519	93	Waste Rock Facility
PAG 5	79	3	Blended in WRF
PAG 6	123	4	Isolated cells in WRF / ACMA backfill
PAG 7	2	0.1	Low-grade ore stockpile / ACMA backfill
Total	2,723		

Process Mineralogy



- Au in Donlin ore is all sub-microscopic
 - Disseminated in crystal structure of arsenopyrite and pyrite, hence it is refractory.
 - Not directly leachable (“refractory”)
- Arsenopyrite is primary host accounting for ~80% of Au in feed.
- Pyrite, although 3-10 times more abundant than arsenopyrite, carries ~20% of the gold.

Process Flowsheet



Mill Site Layout



Mercury Abatement



- Major focus during process design
- Expertise developed at Barrick operations in Nevada
- Mercury volatilized when heated
 - Autoclave, Carbon Regeneration Kiln, Smelter, Electro-winning Circuit, Retort
- Control design elements
 - Gas quenching
 - Particulate removal
 - Refrigeration
 - Carbon beds

Cyanidation Control

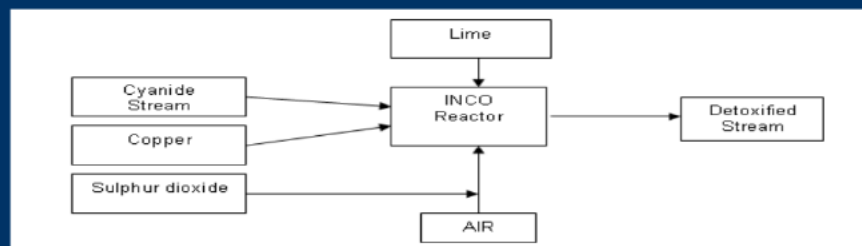


- Process Design and Handling Systems conform to the International Cyanide Management Code (ICMC).
 - Voluntary initiative for cyanide management.
 - Minimize personnel & environmental exposure through design and application of physical & automated control
- Includes:
 - HCN Monitoring (gaseous)
 - Covered leach tanks, operating under partial vacuum (surface) reporting to dedicated gas scrubbing
 - Tan theta design principle for slurry spillage
 - Minimum of two physical spillage control systems
 - Specially designed Iso-tainers
 - Detoxification of residual cyanide in tailings.

Cyanide Detoxification



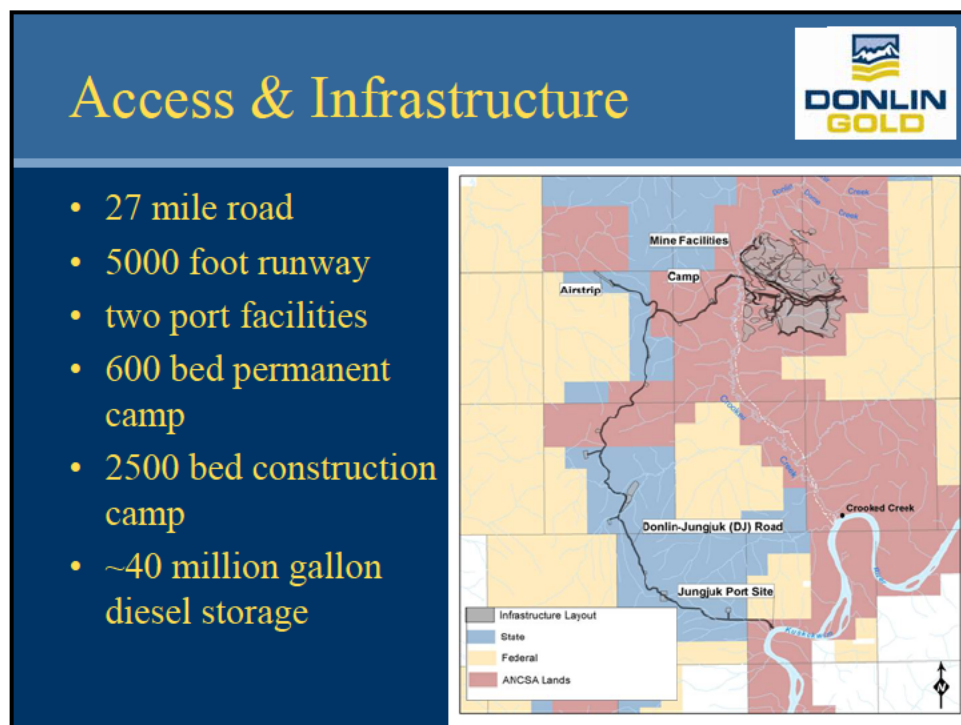
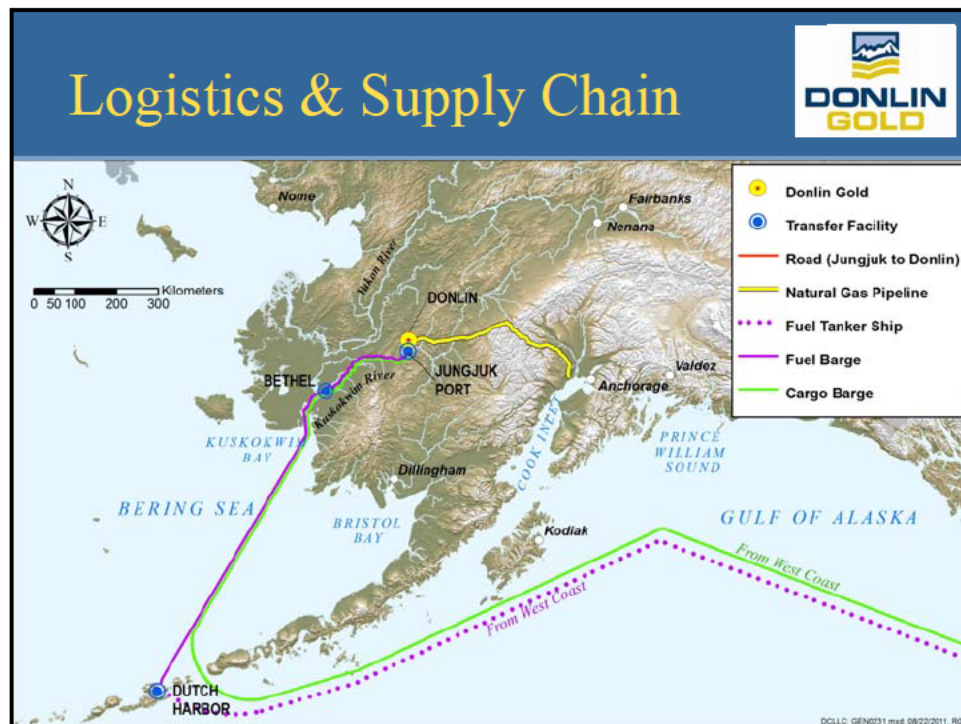
- INCO Air/SO₂ cyanide detoxification pre-treatment of the CIL tailings is completed before going to tailings storage facility
- Well known, well tested process



Water Management



- **Objectives**
 - No discharge of process water during operations
 - Ensure sufficient supply of water during operation
 - Minimize amount of water that has to be treated
- **Components**
 - Precipitation ~20 in/year
 - American and Anaconda watersheds ~ 7 mi² each
 - All contact water captured, used, or stored onsite
 - Discharge of treated dewatering water

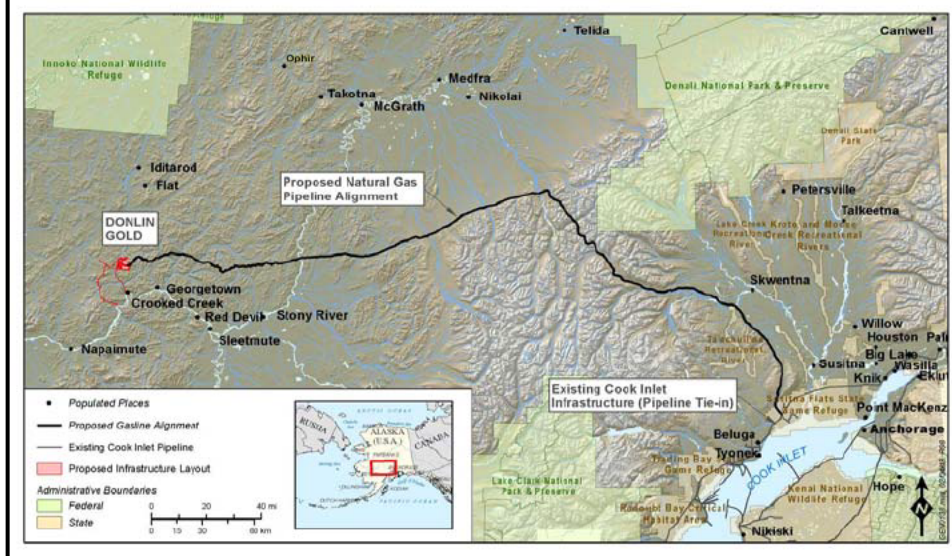


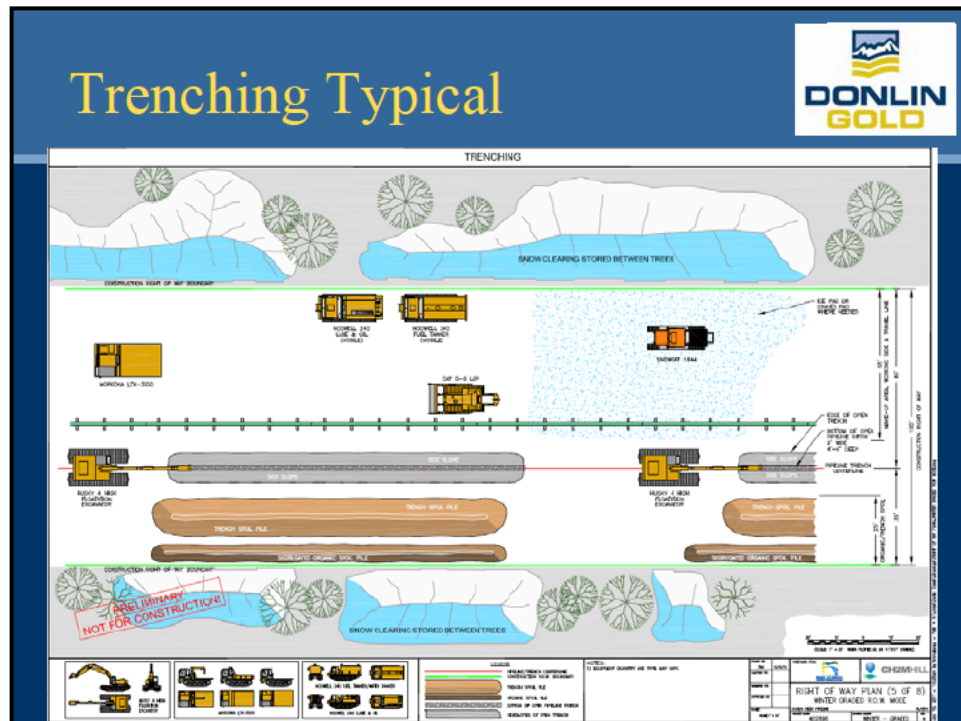
Gas Pipeline



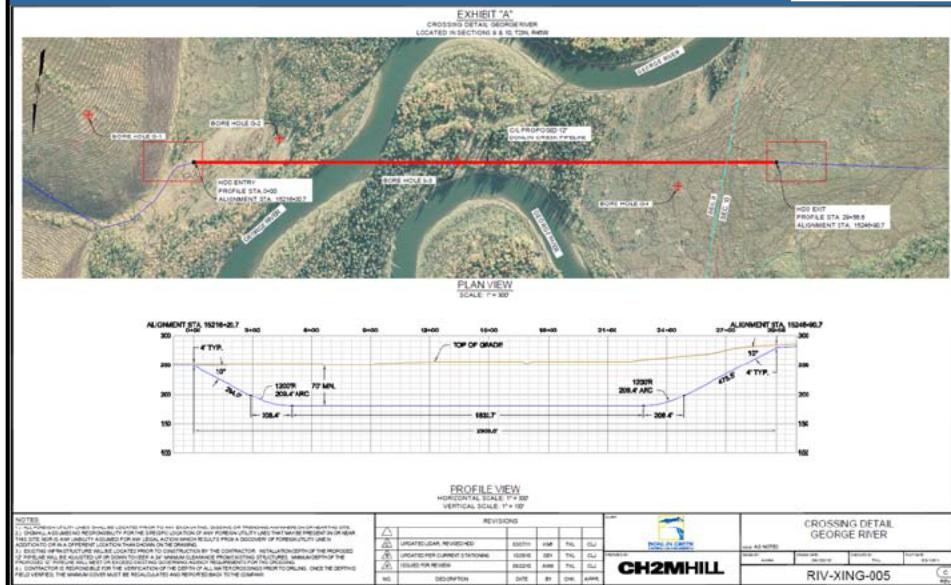
- **Description**
 - 313 mile, buried, 14" steel pipeline
 - ~70 mmscfd capacity
 - 1,480 psig max allowable operating pressure
- **Land Status**
 - ~56% State, ~34% BLM, ~10% ANCSA/Private
- **Facilities**
 - Single compressor station
 - Pig-launching/receiving stations (start, middle, end)
 - ~19 block valves
 - Cathodic protection, leak protection, and SCADA system
- **Construction**
 - 2 construction spreads, each with 3-4 sections
 - Construction period over 2 winters and 2-3 summers
 - Season for each section based on terrain and geotechnical conditions

Natural Gas Pipeline Route





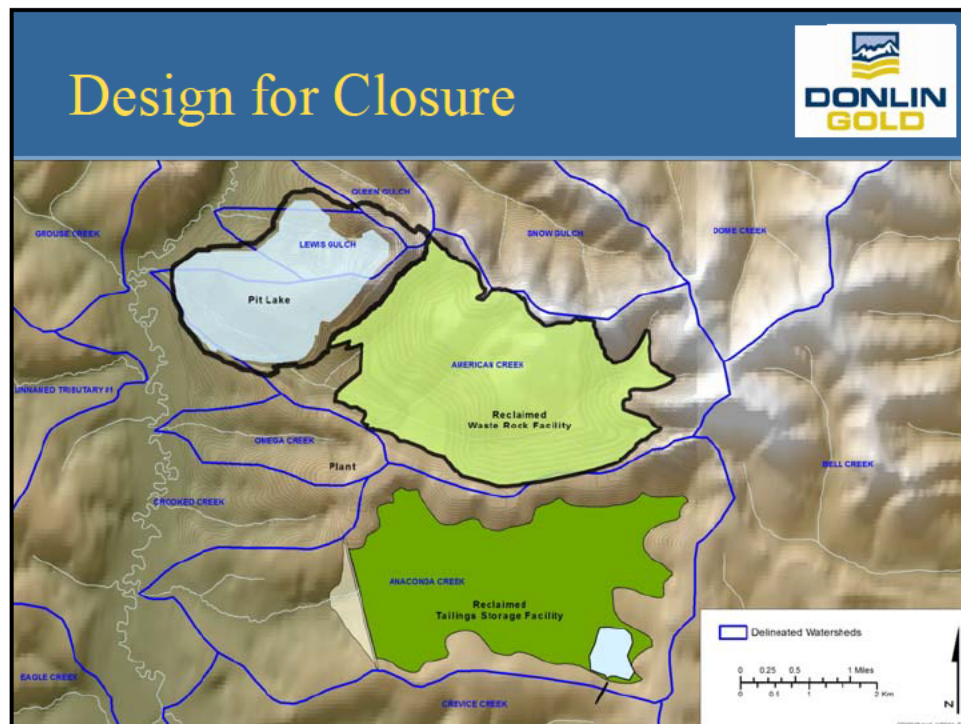
HDD Typical



Reclamation & Closure



- “Design for Closure”
 - Minimize footprint
 - Maximize concurrent reclamation
 - Manage waste rock and tailings facilities for long-term stability
 - Minimize accumulation of water in facilities
- Closure Features
 - Dry closure of tailings facility
 - Removal of all process facilities
 - All contact water reports to pit lake
 - Plan for long-term treatment





Stakeholders

Donlin Gold

- Villages
- Tribes
- Schools
- Interest groups
- Individuals
- Governments
- Native Corporations

(b) (6)

Community Engagement



- **Stakeholder Dialogue**
 - Village meetings, project site and mine tours
- **Workforce Development**
 - Jobs, training, and capacity building
- **Communications**
 - Monthly newsletter, website, social media
- **Community Investment**
 - cultural preservation, environmental protection, community wellness, education
 - community capacity building and sustainability

Questions?

